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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,934	03/06/2002	Amir Alon	IL920020007US1	7058
<div>7590 11/30/2007 IBM CORPORATION INTELLECTUAL PROPERTY LAW DEPT. P.O. BOX 218 YORKTOWN HEIGHTS, NY 10598</div>			<div>EXAMINER LEVIN, NAUM B</div>	
			<div>ART UNIT 2825</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 11/30/2007</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/091,934	Applicant(s) ALON ET AL.	
	Examiner Naum B. Levin	Art Unit 2825	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 43-45 and 47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 43-45 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This office action is in response to application 10/091,934 and Amendment filed on 09/10/2007. Independent claim 43 has been amended and includes additional limitations. Claims 1-42, 46 and 48 have been cancelled. Claims 43-45 and 47 remain pending in the application.

2. The Examiner finds Applicant's arguments on the applications of Dansky as none persuasive. Dansky's reference reads on the claims 43-45 and 47 as presently written.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 43 recites the limitation "said lines" in line 4. There is insufficient antecedent basis for this limitation in the claim. In the preceding limitations claim recites "critical interconnect lines".

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 43-45 and 47 are rejected under 35 U.S.C. 102(e) as being unpatentable by Dansky et al. (US Patent 6,342,823).

5. As to claim 43 Dansky discloses:

**Claim 43 An integrated circuit design library for providing design elements for analog and mixed signal circuits** (The method uses pre-calculated RLC matrices/design elements stored in large tables/ library - col.2, ll.42-45), **the library comprising:**

**a set of selectable transmission line topologies selectable as design elements** (The method uses pre-calculated RLC matrices/design elements stored in large tables/ library - col.2, ll.42-45; The RLC elements/design elements are obtained/selectable from tables 104, 105, and 106/set of selectable transmission line topologies – col.5, ll.31-32) **for critical interconnect lines of an integrated circuit being designed, said lines capable of carrying analog and mixed signals** (Critical nets, such as macro-to-macro connections, data buses between central-processor-unit (CPU) to cache memory/ analog and mixed signals long control lines, clock lines, are identified in the integrated circuit design – col.5, ll.22-23), **which topologies comprise return paths therein** (The resistance of the current return path, the equivalent R12 term, can be obtained by a direct summation of the relevant Vdd and GND buses as shown in FIGS. 3-6. ... Finally, the relevant inductive return path is defined, shown by the shaded conductors in FIGS. 3-6 – col.4, ll.25-38); **and**

**a set of parameterized, equivalent RLC ladder networks one per topology (a cascade of lumped-element  $\pi$ -section RLC network** is calculated based on RLC matrices. One such section is shown in FIGS. 3-6 – col.3, ll.49-60),

6. As to claim 44-45 and 47 Dansky recites:

**(44) The library comprising means for performing both frequency and time domain analysis** (col.2, ll.36-49; col.3, ll.20-23; col.3, ll.49-60);

**(45) The library, wherein at least an inductance parameter is a function of frequency** (L(f) matrix is a matrix of frequency dependent inductance values – col.7, ll.7-8) (col.7, ll.4-8);

**(47) The library, wherein said frequency ranges from DC to a transistor cut-off frequency** (FIG. 8 shows examples of the rate of change of the R.sub.11 R.sub.12, L.sub.11, and L.sub.12 terms from dc or low frequency (1 MHz) to high frequency ... The equivalent circuit is then synthesized. It consists of several low-pass Foster-type filter elements having the cutoff frequencies selected – col.4, ll.5-67; col.5, ll.1-28).

### **REMARKS**

7. Mostly Applicant argues Dansky does not recite: "an integrated circuit design library comprising a set of selectable transmission line topologies selectable as design elements".

Examiner's explanations may be found above with respect to 35 USC § 102 (e) rejection of claim 43.

8. Examiner finds Applicant's arguments as none persuasive, because as indicated above the reference reads on the claims as presently written. For these reasons the prior rejections are maintained. However, Applicants' arguments are to look are well taken.

9. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naum B. Levin whose telephone number is 571-272-1898. The examiner can normally be reached on M-F (8:00-4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner, A.U. 2825